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NEW GENERA AND SPECIES OF DIPTERA.

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Macrocera nobilis, sp. nov. FIG. 10.

Face and front yellow, vertex black; antennae brownish, base yellow, length about 20 mm.; palpi brown. Thorax yellow with fine black hairs and three broad, shining, dark-brown stripes, the dorsal stripe not reaching the scutellum, and the subdorsal stripes ending some distance back of the humeri; a narrow lateral stripe is also present. Scutellum yellow, base brown, pleura and metanotum brownish, shining. Abdomen yellow with lateral stripes of dark brown, slightly interrupted at the base of each segment; seventh and eighth segments entirely dark; hypopygium brown, base yellow; the entire abdomen with moderately long, black, hairs. Legs yellow, the tarsi somewhat brownish in appearance due to the greater density of the fine black hairs. The front coxae are striped with brown and the middle and hind coxae have a brown spot at their base and apex. Wings hyaline, slightly tinged with yellow; tip of R 1 moderately thickened. At the base of R 5 and M 1 and 2 there is a small clouding of brown; toward the base from this is a whitish spot on each side of which the veins are thicker and of a darker brown. Length of ♂ 9 mm.; length of ♀ 10 mm.

The male was taken on the carriage road, Mt. Washington, New Hampshire, July 24, 1915, at about 2,000 feet; the female on Mt. Monadnock, New Hampshire, June 22, 1917. Types in the Society's Collection.

Macrocera trivittata, sp. nov.

Similar in appearance to *M. nobilis*. The pleura is entirely yellow, and the apex of the scutellum dark brown, base yellow. The longer hairs of the thorax are arranged in four regular rows above the upper edges of the subdorsal stripes and between the stripes and the base of the wings. The abdomen has in addition to the lateral stripes a prominent dorsal stripe interrupted at the posterior margin of the segments. The hypopygium is darker and more hairy and the knobs of the halteres are brown. Length 7 mm.

One male, Farewell Creek, southern Saskatchewan, Canada, August, 1887 (Mrs. Varah A. Armstrong). Type in the author's collection.

Dicranota eucera O. S. and **D. noveboracensis** Alexander.

Four specimens taken in Tuckerman's Ravine, and the "Alpine Garden," Mt. Washington, New Hampshire, July 8 and 21, show a remarkable variation of the venation. One is a typical *D. noveboracensis*, having cell M1 present in both wings (fig. 1). In two specimens this is present in one wing only, which would make the specimen referable to either *D. eucera* or *D. noveboracensis*. The other specimen has not only cell M1, but cell 1st M2 (or discal cell) is also present in both wings. With a large series this might prove a rival to the variable *Tricyphona inconstans* O.S.

Apinops atra Coquillett. FIG. 2.

This is apparently quite a rare Tachinid; only two have been seen by the writer. The first was collected at Southwest Harbor, Mt. Desert, Maine, August 20, 1920, and the second was received from Jos. Ouellet, who collected it at Oka, Prov. Quebec, May 24, 1921. The type was from southern Illinois. The specimen from Quebec is especially interesting on account of its abnormal venation, a supernumerary cross-vein being present on each wing in the middle of the first posterior cell. The left wing also has a stump on the second vein just beyond the tip of the first vein. While supernumerary veins are common in the Tipulidae, they are rarely present in the Muscoid Diptera.

EUGENACEPHALA, gen. nov.

Eyes oblong, longer than high, cheeks about two-thirds the height of the head; occiput large, facial plate triangular, terminating in a point between the base of the antennae with a deep triangular fovea below the base of the antennae. Sternopleural bristles are wanting — while there is a large bristle near the edge of the sternopleura it is distinctly on the hypopleura.

Genotype, *E. salsa*, sp. nov.

Eugenacephala salsa, sp. nov. FIGS. 3, 4.

♂, ♀ — Face and cheeks brown; front black, opaque, with fine hairs in irregular transverse rows; three large facial, three frontal-orbital, four vertical, two post-vertical, and two ocellar bristles; first and second joints of the antennae reddish, with numerous bristle-like hairs, the third joint black, rounded and relatively small; arista and palpi blackish. Thorax and scutellum black, opaque and covered with even, short hairs; one anterior and two

posterior dorso-centrals, a humeral, post-humeral, presutural, one post-alar and two supra-alar bristles; scutellum with four marginal bristles. Abdomen black, opaque, with black hairs, which are larger along the lateral and posterior margins. In the female the third segment is nearly double the length of the second while in the male they are about equal. Genitalia of the male rounded, with two long projections which extend along the venter to the posterior margin of the third segment. Legs dark brown, in the female light brown; the anterior femora thickened, shining, the middle and posterior femora but slightly thickened. All of the femora with prominent rows of flexor and extensor bristles; tibial spurs large. Wings brownish, the venation typical of the Scatomyzidae. Length: ♂, 6 mm.; ♀ 6.5 mm.

Five specimens: holotype, Essex, Massachusetts, May 7, 1920 (A. B. Fuller). Allotype, "Narrows," Mt. Desert, Maine, August 13, 1920 (C. W. J.). Paratypes, (♀) Cohasset, Massachusetts, May 16, 1904 (Owen Bryant), and two (♂, ♀) Hampton Beach, New Hampshire, May 3, 1922 (C. E. White, Jr.). Types, four in the collection of the Boston Society of Natural History and one (Hampton Beach, New Hampshire) in the author's collection.

The flattened mesonotum and scutellum, and the stout legs suggest the genus *Coelopa*, but the smooth face, shape of the head, more numerous thoracic bristles, the rounded abdomen and shape of the genitalia, clearly show that it belongs to the family Scatophagidae.

The species seems to be confined to the salt marshes of our coast. At Mt. Desert it was associated with *Ceratinostoma ostiarum* Haliday, *Cirrula gigantea* Cresson, and other maritime species. Another interesting species taken at the same time was *Clanoneurum cimiciformis* Haliday.

***Micropselapha* (?) *albifacies*, sp. nov. FIG. 5.**

♂.—Head pointed, frontal stripe depressed, dark brown and about one-half of the total width of the front; orbits grayish pruinose, bearing three bristles of equal size; two ocellar bristles, and two large vertical bristles back of the upper angle of the eye; face white, strongly receding; cheeks and vibrissae white; palpi light yellow; occiput nearly as wide as the eye, black, grayish pollinose; antennae black, third joint about four times as long as the second, with a whitish pubescence and a dull yellowish base; arista black, with a short, sparse plumosity. Thorax black, grayish pollinose, dorso-centrals 1-3, scutellum with two long bristles; bristles of the pleura white. Abdomen black, grayish pollinose, hairs white. Genitalia light yellow; the V-shaped process extends beneath to the posterior margin of the third segment. Legs including the coxae light yellow; hairs, bristles and tarsi blackish. Halteres yellow. Wings hyaline, with very fine hairs, veins brown. Length 2.5 mm.

One specimen, Fort Kent, Maine, August 17, 1920. Type in the collection of the Boston Society of Natural History. I am placing this provisionally in the above genus until more material is available.

Amphicnephes pullus (Wiedemann). FIG. 8.

In the Genera Insectorum, Diptera, family Muscaridae, subfamily Platystominae, p. 133, tab. 12, figs. 223, 224, 1914, Hendel figures this species as the genotype, presumably from the type, which is in the Museum at Vienna. Recently in studying some specimens from Florida, in connection with those from the more northern States, I find that those from Florida have the antennae as figured by Hendel, the third joint being about six times as long as the second (fig. 8), narrow, of even width and slightly concave above, with the end bluntly rounded. In the more northern specimens ranging from North Carolina to Massachusetts, which represent the *A. pertusus* Loew, the third joint is only three times as long as the second (fig. 9), rounded below and straight above and ending with a blunt point at the upper edge. The Florida specimens are also larger, measuring 4 mm., while the northern specimens are 3 mm.

Loew's genus *Amphicnephes* was based on *A. pertusus* and being monotypic, that species becomes the genotype instead of *A. pullus*.

RHYNENCINA, gen. nov.

Front broad, with two pairs of inclinate fronto-orbital bristles; two large vertical bristles with a small orbital in front opposite the ocelli. The third joint of the antennae is rounded and less than twice the length of the second. Face, palpi and proboscis greatly protruding, the latter bent backward and longer than the head. The anterior cross-vein is midway between the base and the outer end of the discal cell; basal cells of equal length.

Genotype, *R. longirostris*, sp. nov.

Rhynencina longirostris, sp. nov. FIGS. 6, 7.

♂. — Front bright yellow, opaque; ocellar triangle small, blackish, with two bristles; antennae dull yellow, arista black, pubescent; face yellow, shining, protruding, the prominent palpi about one-half the length of the head; proboscis yellow, very long and extending backward from the bend to the tip, longer than the head; occiput yellow, with two black spots in the middle. Thorax dark yellow, opaque, with numerous fine black hairs, a

small black spot between the scutellum and the base of the wing; humeri, a triangular spot in front of the wings, and the scutellum light yellow, the latter with four bristles. There are one post-acrostical, dorso-central, post-humeral, notopleural and supralar, two post-alar and one sterno-pleural, bristles. Abdomen dark yellow, shining, with fine black hairs. Halteres and legs yellow. Wings hyaline, clouded as follows:—apex, an irregular band extending from the costa across the posterior cross-vein, a second band from the tip of the first vein across the anterior cross-vein, but not reaching the margin; there is a short band or spot at the costa midway between these, which does not extend beyond the third vein; stigma and base of the wings yellow. Length 3 mm.

♀.—Similar to the male, except that the ovipositor which is nearly one-half the length of the abdomen, is dark red with the base and tip black; the lateral margins of the second and third segments are also narrowly margined with black. Length 5 mm.

Three specimens from Mt. Alto, Pennsylvania, July 22, 1921, collected by T. T. Guyton, were received from A. B. Champlain. Types in the collections of the author and Bureau of Plant Industry, Harrisburg, Pennsylvania.

The shape of the head resembles somewhat that of *Gonyglossum wiedemanni* Meig. as figured by Dr. Bezzi (Boll. del Lab. di Zool. Gen. e Agraria, Portici, 1910, p. 5, fig. 1). The fewer frontal bristles, shape of the eyes, shorter third antennal joint, pubescent arista, longer palpi and proboscis, and the basal cells of equal length seem to separate it widely from that genus. Except for the position of the anterior cross-veins and the longer palpi and proboscis, it is near to *Encina*,—hence the generic name.

***Geomyza subdola*, sp. nov. FIG. 11.**

♂, ♀.—Head, antennae, palpi and proboscis yellow; arista brown, pubescent; face yellow; a second pair of small, frontal orbital bristles is present. Thorax yellow, subshining, with fine black hairs and three pairs of dorso-centrals; scutellum yellow, with four bristles; abdomen dark brown, the first and second segments with a very narrow, lighter posterior margin. Legs yellow, halteres white. Wings hyaline, with a brown spot at the end of the second vein, extending from the costa to the third vein; beyond this at the tip of the wing is a whitish spot; costal cells yellow. Length, 2.5 mm.

Four specimens: holotype, Manomet, Massachusetts, July 27, 1905; paratypes, Auburndale, Massachusetts, August 16; Rutland, Massachusetts, July 9, and Dummerston, Vermont, July 14. All collected by the writer and in the collection of the Society.

This species of *Geomyza* is quite distinct, in that it lacks the cloudings on the cross-veins.

Agromyza diversa, sp. nov.

♂, ♀—Front and occiput black, face brown, epistoma and a median raised line yellow; palpi, proboscis and antennae yellow, arista brown and slightly pubescent. Four frontal orbital bristles. Thorax dark yellow, somewhat shining with numerous fine black hairs; the humeri and scutellum light yellow; three dorso-central and one post-acrostical; scutellum with four long bristles. Abdomen yellow or reddish yellow, hypopygium yellow, ovipositor black. Legs and halteres entirely yellow. Wings hyaline. Length 2.5 mm.

Five specimens: holotype and allotype, Chester, Massachusetts, August 9, 1912, and two paratypes, Dummerston, Vermont, July 14, 1908, in the collection of the Boston Society of Natural History; one paratype, Lafayette, Indiana, in the J. M. Aldrich collection, U. S. National Museum.

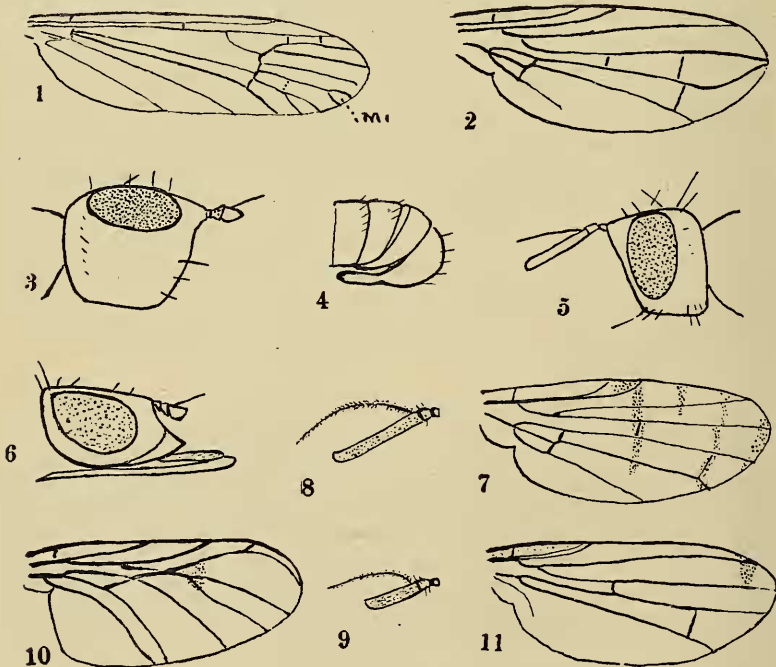


Fig. 1.—Right wing of *Dicraneta eucera* O. S., with cell M 1 present.

Fig. 2.—Wing of *Apindps atra* Coq., with a supernumerary cross-vein.

Fig. 3.—Head of *Eugenacephala salsa*, sp. nov.

Fig. 4.—Hypopygium of *E. salsa*, sp. nov.

Fig. 5.—Head of *Micropselapha* (?) *albifacies*, sp. nov.

Fig. 6.—Head of *Rhynencina longirostris*, sp. nov.

Fig. 7.—Wing of *R. longirostris*, sp. nov.

Fig. 8.—Antenna of *Amphicnephes pullus* Wied.

Fig. 9.—Antenna of *A. pertusus* Loew.

Fig. 10.—Wing of *Macrocera nobilis*, sp. nov.

Fig. 11.—Wing of *Geomyza subdola*, sp. nov.